

In re Patent Application of:

RHODA ET AL.

Serial No. **10/697,270**

Filed: **10/31/2003**

IN THE CLAIMS

1. (currently amended) A method of extending a communication test/measurement agent, comprising:

a) providing the communication test/measurement agent with a communication unit, which enables ~~enabling~~ communication between the communication test/measurement agent and a network test center or client via a network for operating the communication test/measurement agent;

b) providing the communication test/measurement agent with a plurality of different types of communication interfaces, each different type of communication interface for communicating with ~~a~~ different types of networks; and

c) providing the communication test/measurement agent with built-in functionality to enable the communication test/measurement agent to automatically recognize and dynamically incorporate a plurality of different interface-specific plugins that are specific to different types of communication interfaces and which enable the network test center or client to initiate monitoring or testing of the different types of networks, and receive test/monitor data therefrom.

2. (currently amended) The ~~A~~ method according to claim 1, wherein step c) includes loading code of a plugin into the agent.

3. (currently amended) The ~~A~~ method according to claim 1, wherein a plugin is recognized and incorporated after the agent has been

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deployed for communications test/measurement and without reprogramming the agent.

4. (currently amended) The A method according to claim 1, wherein each plugin communicates with an application program that drives the corresponding communication interface.

5. (currently amended) The A method according to claim 1, wherein the agent provides a basic API to the network test center or client that is independent of any communication interfaces, and wherein the plugins extend the API for the respective types of interfaces.

6. (currently amended) The A method according to claim 1 5, further comprising:

providing a request router, which determines which interface a message is intended for by referring to common parts of the message; and

providing an interface table, which tracks which plugins correspond to which interfaces;

wherein the request router passes the message from the communication unit to one of the plugins based on the corresponding interface from the interface table ~~one plugin for a particular type of communication interface allows communication with different communication interfaces of the particular type.~~

7. (currently amended) The A method according to claim 5, wherein an extensible language is used to communicate with the API, wherein a base set of commands of the extensible language corresponds to the built-in functionality, and wherein the recognizing and

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incorporating of a plugin further comprises extending the extensible language with additional verbs that are specific to the plugin.

8. (currently amended) A method of communication with a plurality of network analysis software, the method comprising:

sending a plurality of requests from a communication testing console to a communication agent for monitoring or testing a plurality of different networks;

receiving the requests at the agent;

directing a first one of the requests to a first communication interface, which enables communication with one of the plurality of different networks; [[,]]

directing the first request to a first plugin of the agent that is specific to the type of the first communication interface for monitoring or testing one of the plurality of different networks;

directing a second one of the requests to a second communication interface, which enables communication with another one of the plurality of different networks; [[,]]

directing the second request to a second plugin of the agent that is specific to the type of the second communication interface for monitoring or testing the other one of the plurality of different networks; and

directing a third one of the requests, which is not directed to a communication interface, to ~~handling the third request with a~~ common generic portion of the agent.

9. (currently amended) The A method according to claim 8, wherein

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the plugin responds to the first one of the requests with a response received from an application program that drives the communication interface to which the first request is directed.

10. (currently amended) The ~~A~~ method according to claim 9, wherein the common generic portion of the agent handles the third request by generating a response to the third request.

11. (currently amended) A method of extending a communication agent that provides a communication point for a console of a communication test/measurement system, the method comprising:

deploying the communication agent, where the communication agent is deployed on a computing device comprising a plurality of different types of communication interfaces for communicating with a plurality of different types of networks and communicates with the communication interfaces using a driver application program, and where the console programmatically accesses the agent and accesses the communication interfaces through the agent; and

after the deploying, making the deployed communication agent aware of a new communication interface by installing on the computing device plugin software that can handle commands specific to the new communication interface, where the agent self-recognizes the plugin software and self-integrates the plugin software, whereby the plugin software becomes part of the agent and enables the console to send commands to the new communication interface for monitoring or testing each of the different networks.

12. (currently amended) A communication test/measurement agent

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instantiated in a ~~tangible~~, non-transitory storage medium, comprising:

built-in code to enable a central communication test/measurement system to communicate with and operate the agent; and

built-in code to enable the agent to automatically recognize and dynamically incorporate interface-specific plugins for monitoring or testing different networks, and that are specific to different types of communication interfaces, and which enable the network test/measurement system to communicate with the respective different types of communication interfaces for initiating monitoring or testing of the different networks, and for receiving monitor/test results.

13. (currently amended) The ~~A~~ communication/test measurement agent according to claim 12, further comprising an interface table comprising entries, wherein the agent adds an entry in the interface table to correspond to a new plugin which the agent has incorporated.

14. (currently amended) The ~~A~~ communication/test measurement agent according to claim 13, wherein entries in the interface table identify a plugin for a type of communication interface and a corresponding communication interface of that type.

15. (currently amended) A non-transitory machine-readable storage device for storing information enabling a network test/measurement agent to perform a process, the process comprising:

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receiving and processing generic communications from a central communication test/measurement system to generically operate the network test/measurement agent; and

recognizing and dynamically incorporating into the network test/measurement agent interface-specific a plurality of plugins for monitoring or testing a plurality of different networks, and that are specific to different types of communication interfaces and which allow the central communication test/measurement system to communicate with the respective different types of communication interfaces for initiating monitoring or testing of the different networks, and for receiving monitor/test results from the different networks.